Appl. No. 09/888,189   <u>PATENT</u>
Amdt. dated July 19, 2006
Reply to Office Action of March 20, 2006

REMARKS/ARGUMENTS

This Amendment is in response to the Office Action mailed March 20, 2006. Claims 1-3 5, 6, 10-12, 14, 15, 17, and 18 were pending in the present application. This Amendment amends claims 1, 5, 10, 14, 15, 17, and 18; and cancels claims 2 and 11; leaving pending in the application claims 1, 3, 5, 6, 10, 12, 14, 15, 17, and 18. Reconsideration of the rejected claims is respectfully requested.

I.   Rejection under 35 U.S.C. §103

Claims 1-3, 5, 6, 10-12, 14, 15, 17, and 18 are rejected under 35 U.S.C. §103(a) as being obvious over *Mizuno* (US 6,370,494) in view of *Hellestrand* (US 6,230,114). Applicants respectfully submit that these references do not teach or suggest each element of these claims.

For example, Applicants' claim 1 as amended recites a method of simulating a system, comprising:

> modeling the system to be simulated using computer code to produce a system model comprising at least a first portion and a second portion;
> in a simulator, **performing simulation in a functional simulation mode** having a first accuracy level for at least a first portion of code comprising the first portion of the system model, the behavior of the system represented by the first portion of code being simulated in the functional simulation mode **without regard to execution time to thereby obtain information about functionality of the first portion of the simulated system**; and
> in the same simulator, **performing simulation in a performance simulation mode** having a second accuracy level different from the first accuracy level for at least a second portion of code comprising the second portion of the system model, the behavior of system represented by the second portion of code being simulated in the performance simulation mode **with regard to execution time to thereby obtain information about the performance of the second portion of the simulated system**

(*emphasis added*). Such limitations are neither taught nor suggested by these references.

Mizuno teaches a simulator capable of determining the simulation method appropriate for each functional module of a system in order to obtain a higher-speed simulation (col. 2, line 47-col. 3, line 9). The determination is made by using a small scale test vector for each test, in order to determine the faster simulation method (col. 2, lines 52-60). These simulation methods are

therefore different approaches to obtaining the same type of information, simply using a different approach (e.g., event-driven vs. cycle-driven) in order to obtain the results more quickly for each module when using the optimal method. *Mizuno* does not, however, teach or suggest using a functional simulation for a portion of the code, thereby obtaining functional information, as well as using a performance simulation for another portion of the code, in order to obtain performance information. As *Mizuno* does not teach or suggest such limitations, *Mizuno* cannot render obvious Applicants' claim 1, or the claims that depend therefrom.

Hellestrand does not make up for the deficiencies in *Mizuno* with respect to claim 1. *Hellestrand* teaches a simulation system wherein a <u>processor simulator</u> that simulates a target processor executing a user program is coupled with a <u>hardware simulator</u> for simulating the target digital circuitry, and an interface mechanism allows information to be passed between the hardware and software simulators (col. 4, lines 26-62). *Hellestrand* does not teach or suggest that one of these simulators is a functional simulator and that the other is a performance simulator as recited in Applicants' claim 1. Further, *Hellestrand* does not teach or suggest separate performance and functional simulation modes in the same simulator. As such, *Hellestrand* cannot render obvious Applicants' claim 1 or the claims that depend therefrom, either alone or in combination with *Mizuno*. Claim 10 recites limitations that similarly are neither taught nor suggested by *Mizuno* and *Hellestrand*, such that claim 10 and the claims that depend therefrom cannot be rendered obvious by these references. Applicants therefore respectfully request that the rejection with respect to claims 1-3, 5, 6, 10-12, 14, 15, 17, and 18 be withdrawn.

II.   Amendment to the Claims

Unless otherwise specified, amendments to the claims are made for purposes of clarity, and are not intended to alter the scope of the claims or limit any equivalents thereof. The amendments are supported by the specification and do not add new matter.

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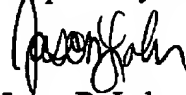Reply to Office Action of March 20, 2006

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 415-576-0200.

Respectfully submitted,

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